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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,530	07/14/2004	Reiner Noske	PD020002	4383

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EXAMINER	
TORRENTE, RICHARD T	
ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,530	NOSKE, REINER	
	Examiner	Art Unit	
	RICHARD TORRENTE	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willis (US 5,434,625) in view of Koyanagi et al. (US 7,034,885).

Regarding claim 1, Willis discloses a method for storing video signals (see 350 of fig. 6) at a first rate (see 640 fH in column 18, lines 15-18) and reading the stored video signals at a second rate (see 1024 fHm of fig. 6); comprising the steps of: compressing video signals (see 370 of fig. 6) in a first buffer memory (see 350 of fig. 7 and "fifo" in column 18, lines 45-49); storing the compressed video signals from said first buffer memory in a random access memory (see 350 of fig. 6 and column 18, lines 45-49, where the ram has a section for fifo); operated synchronously during writing and reading (column 18, lines 15-23); reading said compressed video signals from said random access memory into a second buffer memory (see 354 in fig. 6) at said first rate (see column 18, lines 59-64); reading said compressed video signals from said second buffer at said second rate (see 1024 fHm in fig. 6 and column 18, lines 64-66) such that said compressed video signals are decompressed (see column 18, lines 45-49), wherein the step of compressing video signals includes: dividing video signals to be stored each into

a plural number N of parallel data streams (see divided parallel stream Y_A, U_A and V_A as input to 320 in fig. 6) each carrying said inputted video signal; and time-compressing said plural number of parallel data streams to form a respective plural number of parallel time-compressed data streams (see output of 370 in fig. 6), whereby each of said time-compressed data streams is obtained by sampling every N-th pixel from the respective parallel data stream (see column 17, lines 44-48), said sampling being carded out simultaneously for said parallel data streams at said first rate (see column 18, lines 15-19); wherein the step of storing said compressed video signals from said first buffer memory in said random access memory includes: writing said time-compressed data streams to said random access memory during a write portion of a predetermined write-read cycle of said random access memory (see column 18, lines 15-23; see fig. 10); whereby each of said time-compressed data streams takes up only apart of said predetermined write-read cycle (see RD_EN_MN is a portion of 1 cycle in fig. 10); wherein the step of reading said compressed video signals from said random access memory into said second buffer memory at said first rate includes: reading out said time-compressed data streams from said random access memory in a read portion of said write-read cycle (e.g. see write/read is performed in one cycle in fig. 10) and feeding them to said second buffer memory (see 350 connection to 354 in fig. 6); and wherein the step of reading said compressed video signals from said second buffer (see 354 in fig. 8) memory at said second rate includes: multiplexing (e.g. see 315 in fig. 8) said decompressed data streams.

Willis does not disclose whereby said dividing comprises delaying said parallel data streams with respect to each other by one pixel period.

Koyanagi, in the same field of endeavor, discloses whereby said dividing comprises delaying (see 110-115 in fig. 3) said parallel data streams (e.g. see a, b and c in fig. 3) with respect to each other by one pixel period (see 110-115 in fig. 3).

Given the teachings as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Koyanagi teachings of pixel extraction into Willis picture in picture processor for the benefit of providing an image processing circuit capable of carrying out high-speed processing and improving the horizontal and vertical resolutions even with its simple circuit configuration.

Regarding claim 2, Willis further discloses wherein the write-read cycle of said random access memory comprises a write period and at least one read period (e.g. see write-read cycle of one period in fig. 9 and fig. 10).

Regarding claim 3, Willis further discloses wherein the write-read cycle of said random access memory comprises a write period and three read periods (e.g. see “3:1” in column 16, lines 43-54, where the ranges dictates the 3 times sampling or reading rate in the vertical direction for a desired display format).

Regarding claim 4, Willis further discloses wherein the write or read periods in each case contain, prior to the writing or reading, respectively, control time segments

(see "EN" in 340 of fig. 6) for setting said random access memory for writing or reading, respectively, and, after the write or read periods, respectively, control time segments for terminating the writing or reading (see "RESET" in fig. 6), respectively.

Regarding claim 5, Willis further discloses wherein said random access memory is furthermore refreshed in said time segments (see "CLK" in 340 of fig. 6).

Regarding claim 8, Willis further discloses wherein the video signals are divided pixel by pixel (see column 19, lines 34-39).

Response to Arguments

3. Applicant's arguments filed 12/15/08 have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD TORRENTE whose telephone number is (571) 270-3702. The examiner can normally be reached on M-F: 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Young Lee/
Primary Examiner, Art Unit 2621

RT
/Richard Torrente/
Examiner, Art Unit 2621